



ENERGY &  
ENVIRONMENT  
AWARDS

Skills for a greener world

EEA Level 3 End-point Assessment for Water Process Technician

(Water treatment technician; Wastewater treatment technician; Wastewater (Sewerage) network technician; Water network technician; Water leakage technician)

## **Apprentice Guide**

QAN 610/6102/5  
ST0160 V1.0

# Apprentice Guide for

## EEA Level 3 End-point Assessment for Water Process Technician

**QAN 610/6102/5**

Updates to this Guide .....	4
Introduction.....	6
How This Apprentice Guide Is Organised .....	6
How to Use This Guide .....	6
Section 1: The Basics .....	7
What is an Apprenticeship Standard? .....	7
What is an Assessment Plan?.....	7
What is an end-point assessment (EPA)? .....	8
What are the Gateway Requirements? .....	8
What is the EPA Specification? .....	9
Section 2: Apprentice EPA Journey .....	10
Let us Begin Your EPA Journey. ....	10
How will you be assessed in the end-point assessment? .....	10
Your EPA Journey in a Diagram .....	12
Section 3: End-point Assessment Components .....	13
Component 1: Knowledge Assessment (multiple-choice test).....	13
Practice Component 1: Multiple-Choice test.....	20
Component 2: Portfolio .....	21
Work Log Guidance .....	22
Practice Component 2: Trade Test .....	25
Overall grading.....	26
Section 4: Resits and retakes .....	27
Section 5: Appendices .....	28

Appendix A: Glossary .....	29
Appendix B: Portfolio Mapping Document .....	31
Introduction .....	31
Your next steps.....	31

## Updates to this Guide

Since the first publication of Energy & Environment Awards Water Process Technician Apprentice Guide, the following updates have been made.

Version	Date first published	Section updated	Page(s)
v2.0	May 2025	Rebranded	All
v1.1	Jan 2024	Certification end date information added	
v1.0	Aug 2023	First published	All



### At A Glance Component 1: Knowledge Assessment

Date(s):	
Time:	
Location:	
Examination Conditions:	Controlled by an invigilator
Additional Requirements:	
Assessed and marked by:	Energy & Environment Awards



### At A Glance Component 2: Portfolio – Work Log

Date(s):	To be built up during your training
Time:	
Location:	
Examination Conditions:	Examples must be drawn from your training period
Additional Requirements:	A mapping document must be submitted with the evidence
Assessed and marked by:	Independent Assessor/Employer Assessor



### At A Glance Component 3: Portfolio –Trade Test

Date(s):	
Time:	
Location:	
Examination Conditions:	
Additional Requirements:	
Assessed and marked by:	Energy & Environment Awards approved Independent Assessor

## Introduction



Energy & Environment Awards has been selected by your employer to carry out end-point assessment (EPA) and it is our job to ensure that you are assessed fairly.

## How This Apprenticeship Guide Is Organised

✓ Section 1:

What is in the Apprenticeship Guide?

✓ Section 2:

An Apprentice's End-point Assessment Journey

✓ Section 3:

End-point Assessment Components

## How to Use This Guide

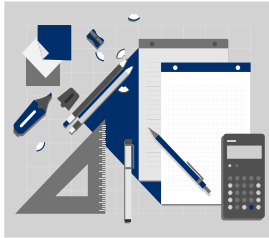


This guide has been split into 3 sections. You can dip into each section that you are working on where you will find useful information, practical advice, tips you need and useful dates to successfully complete your EPA.

Throughout we have used headings and cross referenced to our EPA Water Process Technician (WPT) Specification which provides details of the EPA components.

## Section 1: The Basics

### What is an Apprenticeship Standard?



An apprenticeship standard is a description of your apprenticeship, and it is based on the Water Process Technician standard, which was written by employers. It contains the Water Process Technician's job profile, and describes the knowledge, skills and behaviours (KSBs):

- Knowledge: (as part of KSBs) – specific information, technical detail, and 'know-how' identified as part of the apprenticeship standard that must be evidenced during your end-point assessment
- Skills: (as part of KSBs) – the practical application of knowledge identified as part of the apprenticeship standard that must be evidenced during end-point assessment
- Behaviours (as part of KSBs) – specific mindsets, attitudes or approaches identified as part of the apprenticeship standard that must be evidenced during end-point assessment

The standard can be accessed via the link below:

<https://skillsengland.education.gov.uk/apprenticeship-standards/st0160-v1-0>

### What is an Assessment Plan?

An Assessment Plan is also written by employers and provides details of what is required for you to pass your end-point assessment. It includes details of what you will be assessed on, how each assessment will take place, what methods will be used and who will assess you.

Energy & Environment Awards designed the end-point assessment (EPA) to meet the requirements of the Assessment Plan. The Assessment Plan can be accessed via the link below:

[https://skillsengland.education.gov.uk/media/1075/water\\_process\\_technician.pdf](https://skillsengland.education.gov.uk/media/1075/water_process_technician.pdf)

## What is an end-point assessment (EPA)?

The end-point assessment is the assessments you take at the end of your apprenticeship. You will typically spend 48 months on-programme working towards your standard with a minimum of 20% off-the-job training. You are required to spend a minimum of 12 months on-programme. After this you have a Gateway meeting with your employer or training provider to confirm you are ready for the end-point assessments. The words end-point means that you will be assessed at the end of your on-programme (training) to confirm you have met the standard. Your EPA period will typically last 3 months. The end-point assessments consist of 2 components:

- Knowledge Assessment (multiple-choice test)
- Portfolio Assessment, incorporating a work log and trade test documentation

Each component has a provisional grade and score. These are carried forward to award a final grade. You must pass both components to pass your apprenticeship.

The final grade can be a Fail, Pass or Distinction.

## What are the Gateway Requirements?

Gateway is a meeting where your employer, training provider and you ensure that you are confident that you can demonstrate all the KSBs defined in the apprenticeship standard and you are ready for EPA. After the meeting, your training provider will confirm the outcomes of the Gateway meeting by sending a signed document to Energy & Environment Awards. The document confirms that you have met the following Gateway requirements:

- achieved English and maths at level 2
- compiled a work log to be submitted as part of the portfolio

Your training provider will send copies of these documents to Energy & Environment Awards.



## What is the EPA Specification?

EEA Level 3 End-point Assessment for Water Process Technician  
(Water treatment technician; Waste water treatment technician; Waste water (sewerage) network technician; Water leakage technician; Water network technician)

**Specification**

QAN 610/0236/7

The end-point assessment specification provides details of the assessment methods used in your EPA, which:

- KSBs that are covered by each assessment
- KSBs amplification and guidance

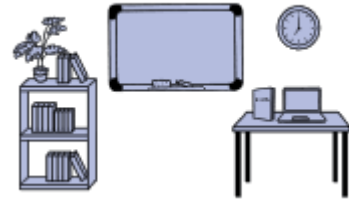
The Specification can be accessed via the link below:

<https://energyenvironmentawards.co.uk/epa/water-process-technician/>

## Section 2: Apprentice EPA Journey

### Let us Begin Your EPA Journey.

Find a quiet place and read on....



Water Process Technician is a core and options apprenticeship standard. You must be trained and assessed against the core and one of the following specialisms:

- Water treatment technician
- Waste water treatment technician
- Waste water (sewerage) network technician
- Water leakage technician
- Water network technician

Your EPA journey consists of 3 elements:

- A training programme with on the job, off the job elements, typically 48 months
- Gateway meeting window
- End-point Assessment (EPA) typically 3 months

Your journey begins with the training program. Your employer and training provider are responsible for this part. This is where you will gain the required Knowledge, Skills and Behaviours (KSBs).

### How will you be assessed in the end-point assessment?

You will be assessed on the following components, which can be taken in any order:

1. Knowledge assessment (Multiple-choice test)
2. Portfolio, incorporating
  - a) Work log
  - b) Trade Test documentation

It is important for you to keep a record of when your assessments are scheduled. We suggest you use the 'At a Glance' tables on page 5.

You must pass all components to achieve this qualification. For further guidance refer to Section 3 End-point Assessment Components.

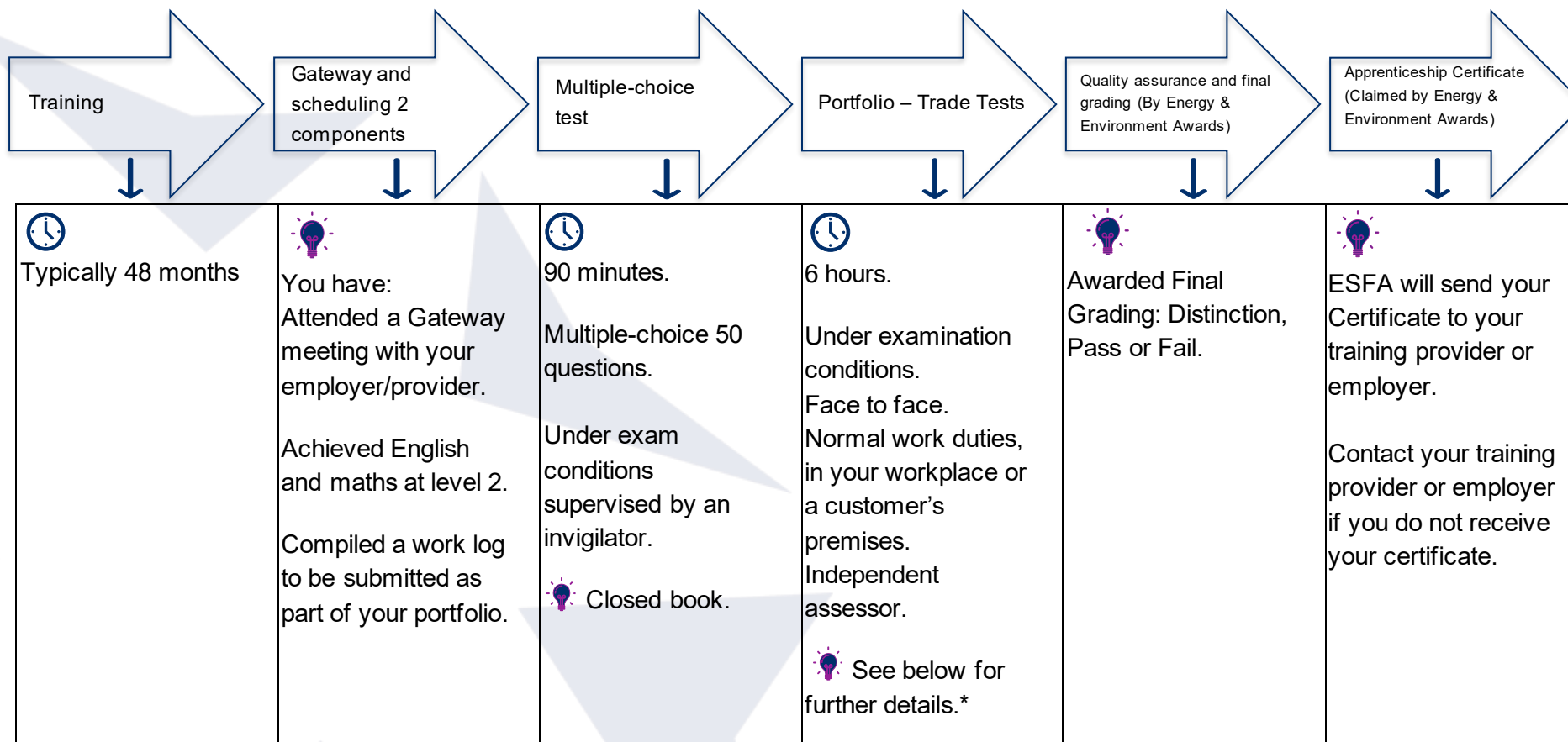
**IMPORTANT: The last date for certification is 31 October 2027.**

### Reasonable adjustments

A reasonable adjustment is any action that helps to reduce the effect of a disability or difficulty that places you at a substantial disadvantage during assessments. If this applies to you make sure you tell your training provider who can make an application for a reasonable adjustment to Energy & Environment Awards on your behalf.

## Your EPA Journey in a Diagram

The diagram below illustrates the order of your EPA **journey** from the day you register to your final certification:



\*For further details refer to Section 3 of this Apprentice Guide Section or 2 of the Specification

## Section 3: End-point Assessment Components

Now let us continue your journey through EPA. There are 2 components that you must pass to be awarded a certificate.

### Component 1: Knowledge Assessment (multiple-choice test)

#### Overview

The multiple-choice test is paper based. You will have 1 hour 30 minutes to complete the test. The test consists of 50 questions.

The multiple-choice questions will have four possible answers of which one will be correct.

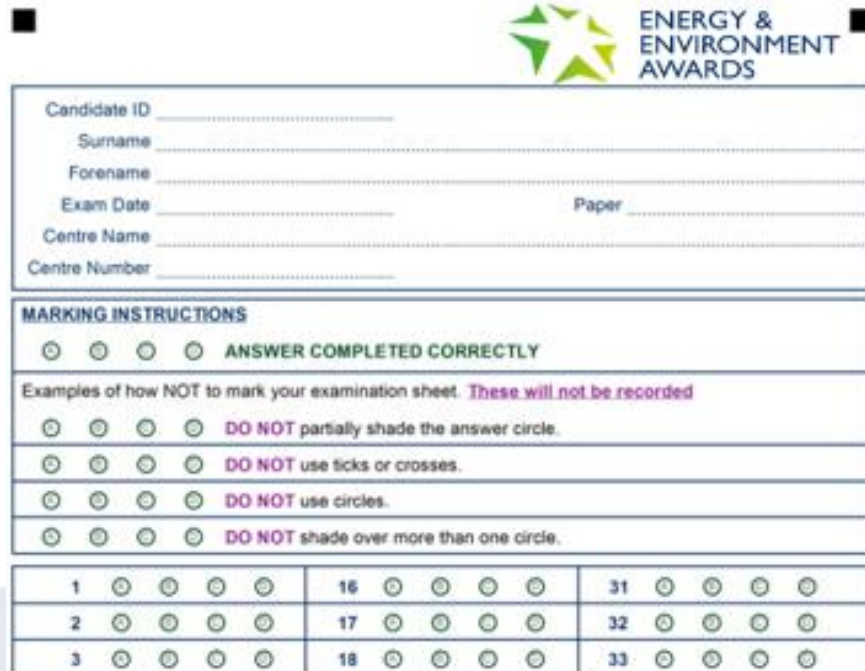


#### Step-by-Step Guide

The table below provides a step-by-step guide on how the multiple-choice test will be carried out:

Who will start and finish your multiple-choice test?	You will sit your multiple-choice test in the presence of an invigilator.														
How will the question appear?	<p>Here is an example of how the question will appear:</p> <table border="1"> <tr> <th colspan="2">Question 1</th></tr> <tr> <td colspan="2">In a workplace, who is responsible for maintaining health and safety?</td></tr> <tr> <th colspan="2">Possible answers</th></tr> <tr> <td>a)</td><td>Employers</td></tr> <tr> <td>b)</td><td>Safety managers</td></tr> <tr> <td>c)</td><td>Most senior person on-site</td></tr> <tr> <td>d)</td><td>Everyone</td></tr> </table>	Question 1		In a workplace, who is responsible for maintaining health and safety?		Possible answers		a)	Employers	b)	Safety managers	c)	Most senior person on-site	d)	Everyone
Question 1															
In a workplace, who is responsible for maintaining health and safety?															
Possible answers															
a)	Employers														
b)	Safety managers														
c)	Most senior person on-site														
d)	Everyone														

You must **select one answer** that you think is correct. You will be provided with an answer sheet where you will be expected to shade in the answer you have selected. Here is an example:



The example answer sheet includes the following sections:

- Header:** Energy & Environment Awards logo.
- Form Fields:** Candidate ID, Surname, Forename, Exam Date, Centre Name, Centre Number, and Paper.
- MARKING INSTRUCTIONS:**
  - ANSWER COMPLETED CORRECTLY (shown with a fully shaded circle).
  - Examples of how NOT to mark your examination sheet. *These will not be recorded*:
    - DO NOT partially shade the answer circle.
    - DO NOT use ticks or crosses.
    - DO NOT use circles.
    - DO NOT shade over more than one circle.
- Answer Grid:** A table with 33 questions (1-33) and five possible answers (A-E) for each, represented by circles.



**Always have a go even if you are not sure that it is the correct answer.**

Can I take any resources into the exam room?

The test is closed which means that you cannot refer to reference books or any other materials. You will be provided with stationery on the day.  
A (scientific) calculator is required for the test.

Can I have access to the internet?

No access to the internet is allowed and this means you must not take your SMART watch into the exam room.

How will the multiple-choice test be organised for me?

**Locations:** Your multiple-choice test will take place at your employer's or training provider's premises or a suitable venue.

- You will take the test in a quiet space and in the presence of an invigilator
- Your test will be scheduled by your employer or training provider with Energy & Environment Awards
- If you fail the multiple-choice test, you can re-sit or re-take the failed test at your employer's discretion. There are no limits to the number of re-sits or re-takes you can take but it

	is important to revise and ensure that you are confident with the knowledge you are being tested on						
What criteria will I have to learn?	The multiple-choice test questions are knowledge based and sample the 3 core knowledge criteria. Below is a list of the knowledge criteria, assessed in the multiple-choice test along with the range of questions that will be allocated to a multiple-choice test paper:						
<b>AND</b>							
How many questions will be asked on each criteria?	<table> <tr> <th>Number of Questions</th><th>Knowledge</th></tr> <tr> <td><b>2-3</b></td><td> <b>K1</b> Relevant industry health and safety standards, regulations, environmental and regulatory requirements  To include <ul style="list-style-type: none"> <li>• COSHH</li> <li>• Asbestos awareness</li> <li>• Working at height</li> <li>• First aid</li> <li>• Risk assessment</li> <li>• PPE</li> <li>• H&amp;S signage</li> <li>• Isolation procedures</li> <li>• Working time directive</li> <li>• Reporting accidents/incidents</li> <li>• Manual handling</li> <li>• RIDDOR</li> <li>• Confined space</li> </ul> </td></tr> <tr> <td><b>2-4</b></td><td> <b>K2</b> Maintenance practices, processes and procedures covering a range of waste and water systems, plant and equipment  To include <ul style="list-style-type: none"> <li>• Types of maintenance</li> <li>• Isolation procedures</li> <li>• Specifications</li> <li>• Signs and symbols</li> </ul> </td></tr> </table>	Number of Questions	Knowledge	<b>2-3</b>	<b>K1</b> Relevant industry health and safety standards, regulations, environmental and regulatory requirements To include <ul style="list-style-type: none"> <li>• COSHH</li> <li>• Asbestos awareness</li> <li>• Working at height</li> <li>• First aid</li> <li>• Risk assessment</li> <li>• PPE</li> <li>• H&amp;S signage</li> <li>• Isolation procedures</li> <li>• Working time directive</li> <li>• Reporting accidents/incidents</li> <li>• Manual handling</li> <li>• RIDDOR</li> <li>• Confined space</li> </ul>	<b>2-4</b>	<b>K2</b> Maintenance practices, processes and procedures covering a range of waste and water systems, plant and equipment To include <ul style="list-style-type: none"> <li>• Types of maintenance</li> <li>• Isolation procedures</li> <li>• Specifications</li> <li>• Signs and symbols</li> </ul>
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<b>2-4</b>	<b>K2</b> Maintenance practices, processes and procedures covering a range of waste and water systems, plant and equipment To include <ul style="list-style-type: none"> <li>• Types of maintenance</li> <li>• Isolation procedures</li> <li>• Specifications</li> <li>• Signs and symbols</li> </ul>						

- Process control
- Alarms and trips
- Relevant mathematical calculations
- Calibration/certification
- Testing
- Legislation

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**1-4 K3** Company policies and procedures including HR, Operations and Health & Safety

To include

- COSHH
- Asbestos awareness
- Working at height
- First aid
- Risk assessment
- PPE
- H&S signage
- Isolation procedures
- Working time directive
- Reporting accidents/incidents
- Manual handling
- RIDDOR
- Confined space
- Asset security

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**37-43 K4** Water industry operations in water and waste water treatment, water and sewerage network operations

Based on specific pathway. To include

**Water Treatment Technician:**

- Raw Water Operations
- Water Quality requirements
- Works design, flows, hydraulic theories, principles & calculations
- Disinfection
- Treated water Storage



- Screening
- Coagulation
- Clarification
- Filtration
- Taste and odour removal
- Reporting accidents/incidents
- Waste streams and treatment
- Distribution system protection
- Regulatory performance measures

**Water Distribution Network Technician:**

- Regulatory performance measures
- Water Quality requirements
- Valve and hydrant operations
- Network assets and design
- Network performance monitoring
- Water Quality sampling
- Location and avoidance of underground apparatus
- Pressure management
- NRSWA
- Leakage detection operations
- Water fittings regulations
- Data logging operations
- Materials used in clean water networks
- Customer side leakage
- Access to private land
- Rehabilitation and renewal
- Flow and hydraulics theories, principles and calculations

**Water Distribution Leakage Technician:**

- Regulatory performance measures
- Water Quality requirements
- Network assets and design
- Network performance monitoring

- Valve and hydrant operations
- Location and avoidance of underground apparatus
- NRSWA
- Leakage detection operations
- Water fittings regulations
- Data logging operations
- Materials used in clean water networks
- Customer side leakage
- Access to private land
- Rehabilitation and renewal
- Flow and hydraulics theories, principles and calculations



**Wastewater (Sewerage) Network Technician:**

- Regulatory reporting and performance measures
- Sewerage networks assets and design
- Pollution reporting
- Incident response including flooding and blockages
- Regulations relating to network installation and alteration
- Access to private land
- Jetting operations and best practice
- CCTV operations including industry standard coding
- Location and avoidance of underground apparatus
- NRSWA
- Flow and hydraulics theories, data and calculations

**Wastewater Treatment Technician:**

- Wastewater compliance and performance monitoring

	<ul style="list-style-type: none"> <li>• Works design, flow separation, hydraulic theories, principles &amp; calculations</li> <li>• Sewage pumping station operations</li> <li>• Screenings and grit removal</li> <li>• Primary settlement operations</li> <li>• Biological treatment (all including fixed film and ASP)</li> <li>• Sludge storage, treatment and transportation</li> <li>• Odour management</li> <li>• Incident support and pollution reporting</li> <li>• Phosphate removal</li> </ul>
<b>1-2</b>	<p><b>K5</b> Relevant level of theory and principles that underpin the use of specific equipment To include</p> <ul style="list-style-type: none"> <li>• Sampling and testing methods, procedures and equipment</li> <li>• Theories and principals of fault finding and problem solving</li> <li>• Relevant calculations</li> <li>• Process measurement equipment</li> <li>• Legislation and reporting requirements</li> <li>• Process control equipment</li> </ul>
<b>1-3</b>	<p><b>K6</b> Testing procedures of equipment and instruments as well as a range of fault finding procedures. To include</p> <ul style="list-style-type: none"> <li>• Testing procedures of equipment and instruments as well as a range of fault-finding procedures</li> <li>• Sampling and testing methods, procedures, and equipment</li> <li>• Theories and principles of fault finding and problem solving</li> <li>• Types of maintenance</li> </ul>

	<ul style="list-style-type: none"> <li>• Maintenance procedures</li> <li>• Inspection</li> <li>• Signs and symbols</li> <li>• Tools and equipment</li> </ul> <hr/>  <b>Remember</b> the questions have been written to reflect the Water Process Technician role as a whole and are not focussed on specific plant, machinery, or employer-specific processes. For amplification and guidance refer to Section 3 of the WPT Specification.
<p>What should I do to prepare for the multiple-choice test?</p>	<p><b>You should be prepared to:</b></p> <ul style="list-style-type: none"> <li>• revise the criteria listed above</li> <li>• ask your employer or training provider for additional questions that they have prepared to support you</li> <li>• attend the multiple-choice test which will last 90 minutes</li> </ul>  While on-programme, the employer or training provider must ensure you are: <ul style="list-style-type: none"> <li>• familiar with all areas assessed by the multiple-choice test as listed above</li> <li>• supported in completing a practice test and provide you with constructive feedback to enable you to identify areas you need to carry out further revision in</li> </ul>

### Practice Component 1: Multiple-Choice test



You should have an opportunity to have a practice multiple-choice test which mirrors the real assessment. The practice multiple-choice test would be set up using the structure in the table above by your employer or training provider. The feedback provided will assist you with preparing for the actual multiple-choice test.

## Component 2: Portfolio

### Overview

You will submit a portfolio consisting of a work log typically developed during the on-programme period together with documentation from a trade test completed in the final three months.



### Step-by-Step Guide

The table below provides a step-by-step guide on how the portfolio assessment will be carried out:

Who will assess me?	<p>An independent assessor, appointed by Energy &amp; Environment Awards will assess the trade test</p> <p>The portfolio's summative assessment will be carried out by an employer assessor who has not directly worked with you or participated in your learning and training</p>
What should the portfolio include?	<ul style="list-style-type: none"> <li>• Copy of the work log mapping document which you have completed mapping your key pieces of evidence to the standard</li> <li>• Copy of driving licence and vehicle safety checks completed</li> <li>• On site assessments/observations</li> <li>• Work place evidence generated by you</li> <li>• Performance reviews including your most recent company performance management paperwork</li> <li>• Witness testimonies</li> <li>• Reflective learning pieces focussing on work you have completed and problems you encountered</li> <li>• Trade test documentation</li> </ul>
What work-based activities should the work log include?	<p>Your portfolio should focus on each knowledge, skills and behaviours listed in the WPT specification Section 2, End-point Assessment Components.</p> <p><a href="https://energyenvironmentawards.co.uk/epa/water-process-technician/">https://energyenvironmentawards.co.uk/epa/water-process-technician/</a></p>

Who sets the task(s)?	The tasks for the trade tests are drawn from a bank of trade tests held by Energy & Environment Awards.
Where will the trade test take place?	The trade test will be conducted in a controlled assessment location which may be either on-site or in an environment that reflects the hazards and risks of a real time working environment.
What are the tasks that will be covered in the trade test?	You will be given two mandatory tests and one randomly selected test. All tests are dependent on the pathway you are following.  For detail about the tasks refer to the WPT specification Section 2, End-point Assessment Components using the link above.
What resources can I use?	You will be expected to select and use the appropriate equipment and tools, protect yourself and others from potential harm.
How many questions will I be asked?	The assessor will ask knowledge questions where competence is not confirmed through observation of performance and will record the answers given.
What will the questions focus on?	Underpinning knowledge and/or skills and behaviours where an opportunity to observe them has not occurred.
Overall grading for this component	The trade test will be awarded a pass or fail. The work log will be awarded distinction, pass or fail. The portfolio, incorporating the trade test, will be awarded fail, pass or distinction.

## Work Log Guidance

The requirements are as follows:

### Work Log Mapping Document

A work log mapping document for each pathway is included in Appendix B of this document. You must include a mapping document at the front of your portfolio that clearly references the location of the evidence in your work log.

### How do I organise my portfolio and map my evidence?

You should start collecting and mapping evidence early in your programme. Map the best evidence. Evidence can be superseded if better evidence is produced later in the programme.

Holistic pieces of evidence can cover multiple criteria and can be mapped against more than 1 section of the mapping document.

Try to ensure that mapped evidence covers the whole range of work that is completed by the role e.g.

- Water Network e.g., customer issues, mains burst, leakage investigation,
- Water Supply e.g., coagulation failure, optimisation of filter monitoring, raw water event, plant/process stream shutdowns,
- Wastewater Network e.g., CCTV survey, jetting, CSO inspection, customer issues
- Wastewater Treatment e.g., pollution event, action limit / consent breaches, process optimisation, plant/process stream shutdowns

Try not to map excessive items of evidence because there is a then a risk that some of the items will be missed. The work log may be in a paper and / or electronic format. Only evidence required for the relevant pathway should be included.



### What should I include in my portfolio?

#### **Quality vs quantity**

You should be supported in selecting and mapping evidence for your portfolio by your employer or training provider.

In theory one comprehensive job-write up could cover all the required KSBs. In practice, this is more likely to be several job write-ups plus a few smaller pieces of evidence targeting specific elements of the standard.

An assessor will look for one suitable piece of evidence for each KSB. To be confident of meeting the standard, you should aim to have two pieces of evidence mapped to each KSB.

Items always expected in a portfolio:

- the latest company appraisal document
- a copy of the apprentices driving licence
- a copy of the apprentices up to date company training record just prior to entering EPA
- A minimum number of 3 documented risk assessments from real work activities over a period of time. These must include reference to the hazard, risk and control measure.

Examples of additional acceptable evidence include:

- workplace documentation and records
- workplace policies and procedures, annotated by you to say how you use them in practice and when you have had to use them
- witness statements signed and dated by coaches/trainers
- annotated photographs/diagrams
- video clips (maximum total duration 20 minutes); you must be in view and identifiable
- job write-ups by you.

The above is not a definitive list. You can include other relevant evidence sources.



You **must not** include in your work log any methods of self-assessment.

Evidence must be:

- produced by you (authentic)
- relevant to the standard (K, S or B) that it is mapped to
- produced during the time you were carrying out your on-programme training

### The role of your employer or training provider

Employers or training providers are expected to support you in preparing your work log by:

- clarifying responsibility for supporting you in selecting and mapping evidence for your portfolio, including the role of employer coaches/mentors where applicable



- advising you on which pieces of evidence you should select to ensure that when it is looked at, your evidence provides coverage of all the required elements of the standard (KSBs) assessed in the work log
- supporting the mapping of your evidence and production of your mapping document
- authenticating evidence you provide is valid
- signing off your work log

### Practice Component 2: Trade Test

You should have an opportunity to have a practice trade test which mirrors the real assessment. A practice trade test would be set up for you, by your employer or training provider, using the structure detailed in the WPT Specification, Section 2..

## Overall grading

The apprenticeship will be graded fail, pass, or distinction. The final grade will be determined by collective performance in the two assessment components.

If you fail one or more assessment method, you will be awarded an overall EPA 'fail'. In order to gain an overall EPA 'pass', you must achieve a pass in all the assessment methods.

A points system will determine if you achieve a pass or distinction and is described below.

- Pass - minimum 2 points (1 point portfolio + 1 point multiple-choice test)
- Distinction - minimum 8 points and maximum 10 points

Minimum combinations:

- Portfolio 5 points + 3 points multiple-choice test = 8 points
- Portfolio 6 points + 2 points multiple-choice test = 8 points
- Portfolio 7 points + 1 point multiple-choice test = 8 points

Your overall grade is based on the scores in individual assessments as follows:

Portfolio %	Points	Grade	Multiple-choice test %	Points	Grade
<69	0	Fail	<69	0	Fail
70	1	Pass	70-79	1	Pass
71-74	2	Pass	80-89	2	Pass
75-79	3	Pass	90-100	3	Distinction
80-84	4	Pass	-	-	-
85-89	5	Distinction	-	-	-
90-94	6	Distinction	-	-	-
95-100	7	Distinction	-	-	-

## Section 4: Resits and retakes

If you fail one or more EPA components, you can re-sit or a re-take the failed component at your employer's discretion. Your employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, but a re-take does. You should have a supportive action plan to prepare for your re-sit or re-take.

Your employer and Energy & Environment Awards will agree the timescale for your re-sit or re-take. A re-sit is typically taken within two months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required. All assessment methods must be taken within a six month period, otherwise the entire EPA will need to be re-sat/re-taken.

There is no capping of grades if any assessment method has to be re-sat or re-taken.

Re-sits and re-takes will not be offered to you if you wish to move from pass to a higher grade.

Energy & Environment Awards resit and re-take policy can be found at:

<https://energyenvironmentawards.co.uk/policies-and-fees/>

## Section 5: Appendices

Appendix A: Glossary

Appendix B: Portfolio Mapping Documents:

- Water treatment technician
- Wastewater treatment technician
- Wastewater network technician
- Water network technician
- Water leakage technician

## Appendix A: Glossary

**Amplification** – provides more detail on how individual knowledge, skills or behaviours statements should be interpreted. Where the KSB statements, themselves are deemed self-explanatory, no amplification is provided. Assessment may include questions on anything identified in the amplification

**Behaviours** – mindsets, attitudes or approaches needed for competence. Whilst these can be innate or instinctive, they can also be learnt. Behaviours tend to be very transferable. They may be more similar across occupations than knowledge and skills. For example, team worker, adaptable and professional

**Elements** – are the knowledge, skills and behaviours and what is needed to competently undertake the duties required for an occupational standard

**Guidance** – is only provided where it is required to support interpretation of the KSB statements

**Gateway** – the stage of the apprenticeship where the apprentice, employer and trainer determine whether the apprentice is ready to undertake the End-Point Assessment

**Independent Assessor** – Will holistically assess the knowledge, skills and behaviours (KSBs) that you have been taught throughout the apprenticeship. Their role as an Independent Assessor would involve assessing component 2 (Portfolio: Trade test)

**Knowledge** – the information, technical detail, and ‘know-how’ that someone needs to have and understand to successfully carry out the duties. Some knowledge will be occupation-specific, whereas some may be more generic

**Options / Pathways** – a specialist route within an occupational standard that builds on the occupational competence for a new entrant to the occupation

**Skills** – the practical application of knowledge needed to successfully undertake the duties. They are learnt through on and/or off-the-job training or experience

**Standard** – An occupational standard is a description of an occupation. It contains occupational profile, and describes KSBs needed for someone to be competent in the occupation's duties. The occupational standards are developed by employers for occupations that meet the Institute for Apprenticeships & Technical Education current criteria. For further details refer to:

<https://skillsengland.education.gov.uk/apprenticeship-standards/st0160-v1-0>

**Topic** - is a collection of elements grouped into a theme e.g., Health and Safety

## Appendix B: Portfolio Mapping Document

### Introduction

Throughout the on-programme part of the apprenticeship, you will need to keep compile a work log to be submitted as part of your portfolio.. The evidence within the work log will need to be mapped to the KSB requirements using the correct mapping document overleaf.

You should use the mapping document for the specialism you are following.

### Your next steps

- Complete the details on the first page
- Ensure each piece of evidence is signed off by your tutor/supervisor/mentor and lead provider (employer or training provider). You can use a number of different types of evidence to demonstrate your competence as described in Section 5 of the Specification – ‘Work Log Guidance?’. For further guidance, you must seek advice from your tutor/supervisor/mentor and lead provider
- Holistic pieces of evidence can cover multiple criteria and can be mapped against more than 1 section of the mapping document
- Map evidence to the criteria in the following pages using a referencing system indicating where the evidence for the criteria is located in your work log e.g., work based evidence Job 1 (J1) page 5 paragraph 2.
- Place the work log mapping document at the front of your portfolio

## Water Treatment Technician: Work Log Mapping

<b>Apprentice Name/Employer:</b>	
<b>Coverage checked by (provider)</b>	
Please ensure this mapping document signposts valid evidence in the Work Log that has been correctly cross-referenced and submit to Energy & Environment Awards along with the Work Log.	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
1. Knowledge and application of relevant health and safety, environmental and industry standards and regulations, policies and procedures <b>K1, K3, S7, S8, S9, WTT9</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at training courses relating to H&S, environmental, regulatory and HR requirements (e.g. Toolbox talks, induction) b) Knowledge of where to access H&S, environmental and industry information c) Reporting any faults, loss or issues with equipment d) Suggesting and implementing appropriate control measures e) Identifying changing situations in the workplace and taking the appropriate action Other)	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	f) Voluntarily engaging with employer to make contributions to health and safety improvements and initiatives g) Understanding of the wider ranging consequences of not following standards, regulations, policies and procedures h) Continuously updating knowledge regarding health, safety, environmental and industry standards and procedures i) Understanding of wider ranging consequences of not working safely and carrying out risk assessments j) Explaining the need to maintain and store PPE and other safety equipment k) Explaining the wider ranging consequences of not working appropriately with (including storage and disposal of) chemicals l) Monitoring safety equipment use and compliance in others m) Voluntarily taking an active role in completing safety compliance checks for others	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
2. Knowledge and application of water industry operations and maintenance practices, processes and procedures in water treatment <b>K2, K4, S10</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of company operations and maintenance policies and procedures and where to find them e.g. sampling procedures, flow monitoring b) Training / certificates / attendance at training courses relating to operations and maintenance practices, processes and procedures Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
3. Use theory and principles to undertake fault finding, testing and analysis on specific equipment, instruments and IT systems and interpret the results to implement effective solutions <b>K5, K6, S7, S12, S13</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 2 'Pass' examples, such as</p> <ul style="list-style-type: none"> <li>a) Training / certificates / attendance at courses relating to specific equipment, instruments and IT systems</li> <li>b) Testing and maintaining H&amp;S equipment</li> <li>c) Knowledge and use of the operation of flow monitoring equipment</li> <li>d) Identifying faults and alarms</li> <li>e) Understanding alarms, priorities, consequences and responses</li> <li>f) Consulting and working with others to investigate, identify and resolve the root cause of problems</li> <li>g) Verifying IT systems are working correctly</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	<ul style="list-style-type: none"> <li>h) Independently conducting fault or route cause analysis to successful conclusion without guidance</li> <li>i) Presenting and sharing findings in a logical and consistent manner</li> <li>j) Technical understanding of process equipment options and practical assessment and application of their suitability for use</li> <li>k) Suggesting improvements in alarm management</li> </ul>	
4. Drive vehicles equipped with tools and materials to other sites as required <b>S15</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 example, such as <ul style="list-style-type: none"> <li>a) Full driving licence</li> <li>b) Additional driving category training as required</li> <li>c) Complying with company driving policies and procedures on a regular basis e.g. vehicle checks completed</li> <li>d) Safe loading of vehicles</li> <li>e) Keeping company vehicles maintained and cleaned to a high standard</li> <li>Other)</li> </ul>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
5. Complete reports and ensure records are maintained for audit and reporting purposes <b>S17</b>	<b>Pass</b>	Completion of 4 different types of company records, specific to pathway, as required	
6. Work with focus and clear purpose in all weather conditions, covering 24/7 operations, sometimes working alone and safely adapt working methods to reflect changes in working environments <b>S14, S18, SB6, WTT5</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Completing planned work activities accurately and on time in all weather conditions b) Completion of tasks when on their own c) Completion of tasks out of hours d) Compliance with company working time directives Other)	
	<b>Distinction</b>	e) Consistent dynamic risk assessments on a variety of jobs f) Willingly assisting in emergency situations outside of normal working hours	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
7. Control and monitor the operations on your sites: a) using knowledge of design specifications b) to ensure Drinking Water	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Identifying trends and potential faults and treatment problems based on monitoring b) Implementing process changes and monitoring these for effectiveness c) Training in high risk environments including if applicable, confined spaces, permit to work, use of safety equipment, working at height, managing contractors d) Work with others to identify the root cause of problems and resolve issues Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
Quality Standards are met c) to ensure compliance with H&S policies including work in confined spaces, risk assessments and checking method statements <b>WTT1, WTT6, WTT8</b>	<b>Distinction</b>	e) Linking design specifications to practical tasks and suggesting improvements f) Independent optimisation of processes showing opex savings or process efficiencies g) Independently solving problems via root cause analysis and resolving issues h) Checking and controlling the compliance of others on site e.g. contactors, colleagues and visitors to sites i) Willingness to upskill and take additional responsibility for the safety of others	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
8. Monitor and maintain water treatment processes e.g. chemical dosing, filtration and disinfection <b>WTT2</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 3 ‘Pass’ examples, such as</p> <ul style="list-style-type: none"> <li>a) Knowledge of target operating regimes for different processes</li> <li>b) Understanding of site flow sheets and the interdependencies of the processes</li> <li>c) Identifying trends and faults and solving potential treatment problems based on monitoring</li> <li>d) Implementing and monitoring solutions for effectiveness</li> <li>e) Monitoring and maintaining treatment processes to company standards</li> <li>f) Demonstrating a clear understanding of the effects of their actions on other treatment processes upstream and downstream</li> <li>g) Work with others to identify the root cause of problems and resolve issues</li> <li>h) Making adjustments where necessary</li> </ul> <p>Other)</p>	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	i) Independent optimisation of processes showing opex or process efficiencies j) Independently solving problems via root cause analysis and resolving issues k) Long term trend analysis to consider future water quality issues e.g. plate counts on reservoir, raw water quality deterioration l) Instigating collaboration with other departments regarding process changes	
9. Operate, control and maintain process control equipment and instrumentation <b>WTT3</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Identifying trends from data b) Maintaining and altering set points and interpreting alarms c) Identifying problems with monitoring equipment Other)	
	<b>Dist.</b>	d) Suggesting and implementing improvements to process control systems which contribute to opex or process improvements / efficiencies e) Long term trend analysis to consider future water quality issues e.g. plate counts on reservoir, raw water quality deterioration	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
10. Use water treatment theories and principles to ensure processes are maintained at optimum performance <b>WTT4, WTT7</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of water treatment theories and principles for different processes b) Identifying trends and potential faults and treatment problems based on monitoring c) Application of knowledge to optimise treatment performance d) Work with others to identify the root cause of problems and resolve issues Other)	
	<b>Dist</b>	e) Detailed knowledge of water treatment theories and principles e.g. hypochlorous acid production, chemistry of flocculation, influence of contaminants in raw water etc. f) Demonstrating good understanding by sharing knowledge with others e.g. carries out site tours, coaching etc. g) Suggesting and implementing improvements to processes which contribute to opex or process improvements / efficiencies	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
11. Implements emergency procedures and carries out process stream and full treatment works shutdown as required by routine planned maintenance, other situations and emergencies <b>WTT10, WTT11</b>	<b>Pass</b>	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Isolation of process units and streams (and full treatment works if viable) following company procedures b) Isolation of process streams due to: i. Emergencies ii. Maintenance iii. Refurbishment / long term shutdown c) Checking, observing, recording and reporting of isolations and shut downs d) Compliance with company reporting procedures relating to: i. Water Quality ii. Environmental compliance iii. Health and Safety Other)	
	<b>Dist.</b>	e) Involvement in decommissioning and / or recommissioning plant / process stream f) Active involvement with contractors regarding shut downs / upgrades g) Advising others of emergency procedures for the treatment works h) Taking on additional responsibility regarding emergency procedures and situations e.g. fire marshal, first aider etc.	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
12. Organise and control maintenance operations on treatment works equipment <b>WTT12</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Identifying maintenance tasks b) Raise and prioritise work requests correctly based on known information c) Isolation and preparation of equipment for maintenance activities Other)	
	<b>Dist.</b>	d) Identifying and communicating additional and relevant information pertaining to faults identified e.g. part numbers, accessibility issues e) Implementing a contingency to ensure water quality compliance f) Identifying alternative solutions or improvements	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>13. Ownership, responsibility and customer focus.</b> Accepts ownership and responsibility for own work to accomplish, an activity safely and on time, whilst <ul style="list-style-type: none"> <li>maintaining self-discipline</li> <li>working well with others</li> <li>delivering a polite, courteous, professional service</li> </ul> <b>B1, B2, B3</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as  a) Accomplishes an activity safely, correctly and on time b) Interacts well with customers, colleagues and members of the public c) Maintains self-discipline, motivation and always works in a professional manner Other)	
	<b>Dist.</b>	d) Consistently takes responsibility for own performance and strives to go beyond expectations	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>14.</b> Health and safety/risk awareness. Takes responsibility for own and others health and safety, following procedures and policy to think things through whilst being aware of potential consequences, hazards, distractions and changing circumstances for an activity.  <b>B4</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 ‘Pass’ example, such as  a) Demonstrates strict compliance with operational procedures and processes b) Shows an awareness of the impact of changing circumstances on an activity c) Able to identify and deal appropriately with distractions to enable tasks to be achieved Other)	
	<b>Dist.</b>	d) Consistently monitors and checks information to see if changes to plans are required for an activity	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>15. Task management.</b> Possesses and enhances appropriate knowledge, skills and experience to perform the duties of the job. Accomplishes goals by	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as  a) Enhances competency through seeking guidance to help accomplish a task. e.g. Guidance may be provided via operational handbook, digital resources or asking someone. b) Allocates and supervises technical and other required tasks to efficiently accomplish goals Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<ul style="list-style-type: none"> <li>accepting and following instructions given by supervisor</li> <li>responding to training</li> <li>allocating and supervising technical and other required tasks</li> <li><b>B5, B8</b></li> </ul>			



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>16. Results driven.</b> Identifies, organises and effectively uses resources to complete tasks in a timely fashion, considering cost, quality, safety, security and environmental impact. <b>B7</b>	Pass	Minimum requirement to evidence at least 1 'Pass' example, such as  a) Identifies, organises and uses resources effectively to complete tasks, b) Considers cost, quality, safety, security c) Considers environmental impact Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>17. Sustainability and ethical behaviour.</b> Thinks and behaves ethically and undertakes work in a way that contributes to a positive corporate social responsibility. <b>B9, B10, B11</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as  a) Attitude is respectful and positive, concerning the needs or concerns of others. b) Awareness of the needs and concerns of others especially where related to diversity and equality c) Maintains a positive approach to ethical requirements and undertakes work in a way that contributes to sustainable development. Other)	

## Wastewater Treatment Technician: Work Log Mapping

<b>Apprentice Name/Employer:</b>	
<b>Coverage checked by (provider)</b>	
<b>Please ensure this mapping document signposts valid evidence in the Work Log that has been correctly cross-referenced and submit to Energy &amp; Environment Awards along with the Work Log.</b>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
1. Knowledge and application of relevant health and safety, environmental and industry standards and regulations, policies and procedures <b>K1, K3, S7, S8, S9, WWTT10</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at training courses relating to H&S, environmental, regulatory and HR requirements (e.g. Toolbox talks, induction) b) Knowledge of where to access H&S, environmental and industry information c) Reporting any faults, loss or issues with equipment d) Suggesting and implementing appropriate control measures e) Identifying changing situations in the workplace and taking the appropriate action Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	f) Voluntarily engaging with employer to make contributions to health and safety improvements and initiatives g) Understanding of the wider ranging consequences of not following standards, regulations, policies and procedures h) Continuously updating knowledge regarding health, safety, environmental and industry standards and procedures i) Understanding of wider ranging consequences of not working safely and carrying out risk assessments j) Explaining the need to maintain and store PPE and other safety equipment k) Explaining the wider ranging consequences of not working appropriately with (including storage and disposal of) chemicals l) Monitoring safety equipment use and compliance in others m) Voluntarily taking an active role in completing safety compliance checks for others	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
2. Knowledge and application of water industry operations and maintenance practices, processes and procedures in wastewater treatment <b>K2, K4, S10</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of company operations and maintenance policies and procedures and where to find them e.g. sampling procedures, flow monitoring b) Training / certificates / attendance at training courses relating to operations and maintenance practices, processes and procedures Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
3. Use theory and principles to undertake fault finding, testing and analysis on specific equipment, instruments and IT systems and interpret the results to implement effective solutions <b>K5, K6, S7, S12, S13</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 2 'Pass' examples, such as</p> <ul style="list-style-type: none"> <li>a) Training / certificates / attendance at courses relating to specific equipment, instruments and IT systems</li> <li>b) Testing and maintaining H&amp;S equipment</li> <li>c) Knowledge and use of the operation of flow monitoring equipment</li> <li>d) Identifying faults and alarms</li> <li>e) Understanding alarms, priorities, consequences and responses</li> <li>f) Consulting and working with others to investigate, identify and resolve the root cause of problems</li> <li>g) Verifying IT systems are working correctly</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	<ul style="list-style-type: none"> <li>h) Independently conducting fault or route cause analysis to successful conclusion without guidance</li> <li>i) Presenting and sharing findings in a logical and consistent manner</li> <li>j) Technical understanding of process equipment options and practical assessment and application of their suitability for use</li> <li>k) Suggesting improvements in alarm management</li> </ul>	
4. Drive vehicles equipped with tools and materials to other sites as required <b>S15</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 example, such as <ul style="list-style-type: none"> <li>a) Full driving licence</li> <li>b) Additional driving category training as required</li> <li>c) Complying with company driving policies and procedures on a regular basis e.g. vehicle checks completed</li> <li>d) Safe loading of vehicles</li> <li>e) Keeping company vehicles maintained and cleaned to a high standard</li> </ul> Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
5. Complete reports and ensure records are maintained for audit and reporting purposes <b>S17</b>	<b>Pass</b>	Completion of 4 different types of company records, specific to pathway, as required	
6. Work with focus and clear purpose in all weather conditions, covering 24/7 operations, sometimes working alone and safely adapt working methods to reflect changes in working environments <b>S14, S18, SB6</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Completing planned work activities accurately and on time in all weather conditions b) Completion of tasks when on their own c) Completion of tasks out of hours d) Compliance with company working time directives Other)	
	<b>Dist.</b>	e) Consistent dynamic risk assessments on a variety of jobs f) Willingly assisting in emergency situations outside of normal working hours	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
7. Use wastewater treatment theories and principles to ensure processes are maintained at optimum performance <b>WWTT1</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of wastewater theories and principles for different processes b) Work with others to identify the root cause of problems and resolve issues Other)	
	<b>Dist.</b>	c) Detailed knowledge of wastewater treatment theories and principles d) Demonstrating good understanding by sharing knowledge with others e.g. carries out site tours, coaching etc. e) Suggesting and implementing improvements to processes which contribute to opex or process improvements / efficiencies	
8 Operate and maintain process control equipment and instrumentation	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Identifying trends from data b) Maintaining and altering set points and interpreting alarms c) Identifying problems with monitoring equipment Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>WWTT2</b>	<b>Dist.</b>	d) Suggesting and implementing improvements to process control systems which contribute to opex or process efficiencies e) Long term trend analysis to consider future effluent quality issues e.g. Phosphate, Ammonia, DO	
9. Operate and maintain Sewage Treatment and pumping station (Sewerage) systems and associated equipment, including control systems <b>WWTT3, WWTT4</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Monitoring, maintaining and controlling systems to maintain optimum performance of sewage treatment (sewerage) operations and pumping stations including analysing data to identify trends b) Taking appropriate action to maintain sewage treatment and pumping station operations and systems Other)	
	<b>Dist.</b>	c) Independent optimisation of processes showing opex savings or process efficiencies d) Demonstration of the ability to contingency plan and handle emergency situations e.g. arranging resources in a safe & efficient manner	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
10. Control the operations on your sites: a) using knowledge of design specifications b) to ensure Environmental Quality Standards for effluent discharge and air quality are met	<b>Pass</b>	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Knowledge of odour management and how operations are controlled on site to minimise odours b) Identifying trends and potential faults and treatment problems based on monitoring c) Implementing process changes and monitoring these for effectiveness d) Work with others to identify the root cause of problems and resolve issues e) Training in high risk environments including as a minimum confined spaces but may also include where required, permit to work, use of safety equipment, working at height, managing contractors Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
c) to ensure compliance with H&S policies including work in confined spaces <b>WWTT5, WWTT6, WWTT8, WWTT9</b>	<b>Distinction</b>	<ul style="list-style-type: none"> <li>f) Linking design specifications to practical tasks, e.g. upward flow velocities, filter capacity, storm tank capacity</li> <li>g) Independent optimisation of processes showing opex savings or process efficiencies</li> <li>h) Independently solving problems via root cause analysis and resolving issues</li> <li>i) Checking and controlling the compliance of others on site e.g. contactors, colleagues and visitors to sites</li> <li>j) Willingness to upskill and take additional responsibility for the safety of others</li> <li>k) Suggestion of long term solutions to prevent the need for working in high risk environments</li> </ul>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
11. Monitor and maintain wastewater treatment processes including screening, grit removal, settlement, fixed film biological treatment and activated sludge treatment <b>WWTT7</b>	<b>Pass</b>	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Knowledge of target operating regimes for different processes b) Identifying trends and potential faults and treatment problems based on monitoring c) Implementing process changes and monitoring these for effectiveness d) Work with others to identify the root cause of problems and resolve issues e) Demonstrating a clear understanding of the effects of their actions on other treatment processes upstream and downstream Other)	
	<b>Distinction</b>	f) Independent optimisation of processes showing opex savings or process efficiencies g) Independently solving problems via root cause analysis and resolving issues h) Long term trend analysis to consider future effluent quality issues e.g. Phosphate, Ammonia, DO i) Instigating collaboration with other departments regarding process changes	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
12. Implements emergency procedures and carries out process stream and full treatment works shutdown as required by routine planned maintenance, other situations and emergencies <b>WWTT11, WWTT12</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Compliance with pollution incident procedures b) Isolation of process units and streams (and full treatment works e.g. RBCs etc. if viable) following company procedures c) Isolation of process streams due to: Emergencies; Maintenance; Refurbishment / long term shutdown d) Checking, observing, recording and reporting of isolations and shut downs Other)	
	<b>Distinction</b>	e) Involvement in decommissioning and / or recommissioning plant f) Active involvement with contractors regarding shut downs / upgrades g) Advising others of emergency procedures for the treatment works h) Taking on additional responsibility regarding emergency procedures and situations e.g. fire marshal, first aider etc.	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
13. Organise and control maintenance operations on treatment works equipment <b>WWTT13</b>	Pass	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Communicates actions to colleagues as required b) Isolation and preparation of equipment for maintenance activities Other)	
	Dist.	c) Identifying and communicating additional and relevant information pertaining to faults identified e.g. part numbers, accessibility issues d) Implementing a contingency to ensure water quality compliance e) Identifying alternative solutions or improvements	
14. Ownership, responsibility and customer focus. Accepts ownership and responsibility for own work to accomplish, an	Pass	Minimum requirement to evidence at least 1 'Pass' example, such as a) Accomplishes an activity safely, correctly and on time b) Interacts well with customers, colleagues and members of the public c) Maintains self-discipline, motivation and always works in a professional manner Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
activity safely and on time, whilst <ul style="list-style-type: none"> <li>maintaining self-discipline</li> <li>working well with others</li> <li>delivering a polite, courteous, professional service</li> </ul> <b>B1, B2, B3</b>	<b>Dist.</b>	d) Consistently takes responsibility for own performance and strives to go beyond expectations	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>15.</b> Health and safety/risk awareness. Takes responsibility for own and others health and safety, following procedures and policy to think things through whilst being aware of potential consequences, hazards, distractions and changing circumstances for an activity.  <b>B4</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as  a) Demonstrates strict compliance with operational procedures and processes b) Shows an awareness of the impact of changing circumstances on an activity c) Able to identify and deal appropriately with distractions to enable tasks to be achieved Other)	
	<b>Dist.</b>	d) Consistently monitors and checks information to see if changes to plans are required for an activity	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>16.</b> Task management. Possesses and enhances appropriate knowledge, skills and experience to perform the duties of the job. Accomplishes goals by	Pass	Minimum requirement to evidence at least 1 'Pass' example, such as a) Enhances competency through seeking guidance to help accomplish a task. e.g. Guidance may be provided via operational handbook, digital resources or asking someone. b) Allocates and supervises technical and other required tasks to efficiently accomplish goals	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<ul style="list-style-type: none"> <li>accepting and following instructions given by supervisor</li> <li>responding to training</li> <li>allocating and supervising technical and other required tasks</li> </ul> <b>B5, B8</b>			

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>17. Results driven.</b> Identifies, organises and effectively uses resources to complete tasks in a timely fashion, considering cost, quality, safety, security and environmental impact. <b>B7</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Identifies, organises and uses resources effectively to complete tasks, b) Considers cost, quality, safety, security c) Considers environmental impact	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>18.</b> Sustainability and ethical behaviour. Thinks and behaves ethically and undertakes work in a way that contributes to a positive corporate social responsibility. <b>B9, B10, B11</b>	Pass	Minimum requirement to evidence at least 1 'Pass' example, such as a) Attitude is respectful and positive, concerning the needs or concerns of others. b) Awareness of the needs and concerns of others especially where related to diversity and equality c) Maintains a positive approach to ethical requirements and undertakes work in a way that contributes to sustainable development.	

## Wastewater Network Technician: Work Log Mapping

<b>Apprentice Name/Employer:</b>	
<b>Coverage checked by (provider)</b>	
Please ensure this mapping document signposts valid evidence in the Work Log that has been correctly cross-referenced and submit to Energy & Environment Awards along with the Work Log.	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
1. Knowledge and application of relevant health and safety, environmental and industry standards and regulations, policies and procedures <b>K1, K3, S7, S8, S9</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at training courses relating to H&S, environmental, regulatory and HR requirements (e.g. Toolbox talks, induction) b) Knowledge of where to access H&S, environmental and industry information c) Reporting any faults, loss or issues with equipment d) Suggesting and implementing appropriate control measures e) Identifying changing situations in the workplace and taking the appropriate action Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	f) Voluntarily engaging with employer to make contributions to health and safety improvements and initiatives g) Understanding of the wider ranging consequences of not following standards, regulations, policies and procedures h) Continuously updating knowledge regarding health, safety, environmental and industry standards and procedures i) Understanding of wider ranging consequences of not working safely and carrying out risk assessments j) Explaining the need to maintain and store PPE and other safety equipment k) Explaining the wider ranging consequences of not working appropriately with (including storage and disposal of) chemicals l) Monitoring safety equipment use and compliance in others m) Voluntarily taking an active role in completing safety compliance checks for others	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
2. Knowledge and application of water industry operations and maintenance practices, processes and procedures in water network operations <b>K2, K4, S10</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of company operations and maintenance policies and procedures and where to find them e.g. sampling procedures, flow monitoring b) Training / certificates / attendance at training courses relating to operations and maintenance practices, processes and procedures Other)	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
3. Use theory and principles to undertake fault finding, testing and analysis on specific equipment, instruments and IT systems and interpret the results to implement effective solutions <b>K5, K6, S7, S12, S13</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 2 'Pass' examples, such as</p> <ul style="list-style-type: none"> <li>a) Training / certificates / attendance at courses relating to specific equipment, instruments and IT systems</li> <li>b) Testing and maintaining H&amp;S equipment</li> <li>c) Knowledge and use of the operation of flow monitoring equipment</li> <li>d) Identifying faults and alarms</li> <li>e) Understanding alarms, priorities, consequences and responses</li> <li>f) Consulting and working with others to investigate, identify and resolve the root cause of problems</li> <li>g) Verifying IT systems are working correctly</li> <li>h) Testing, calibrating and maintaining monitoring instruments and equipment</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	<ul style="list-style-type: none"> <li>i) Independently conducting fault or route cause analysis to successful conclusion without guidance</li> <li>j) Presenting and sharing findings in a logical and consistent manner</li> <li>k) Technical understanding of process equipment options and practical assessment and application of their suitability for use</li> <li>l) Suggesting improvements in alarm management</li> </ul>	
4. Drive vehicles equipped with tools and materials to other sites as required <b>S15</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 example, such as <ul style="list-style-type: none"> <li>a) Full driving licence</li> <li>b) Additional driving category training as required</li> <li>c) Complying with company driving policies and procedures on a regular basis e.g. vehicle checks completed</li> <li>d) Safe loading of vehicles</li> <li>e) Keeping company vehicles maintained and cleaned to a high standard</li> <li>Other)</li> </ul>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
5. Complete reports and ensure records are maintained for audit and reporting purposes <b>S17</b>	<b>Pass</b>	Completion of 4 different types of company records, specific to pathway, as required	
6. Work with focus and clear purpose in all weather conditions, covering 24/7 operations, sometimes working alone and safely adapt working methods to reflect changes in working environments <b>S14, S18, SB6</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Completing planned work activities accurately and on time in all weather conditions b) Completion of tasks when on their own c) Completion of tasks out of hours d) Compliance with company working time directives Other)	
	<b>Dist.</b>	e) Consistent dynamic risk assessments on a variety of jobs f) Willingly assisting in emergency situations outside of normal working hours	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
7. Use hydraulic theories, data and calculations from flow surveys to assess sewer capacity and performance <b>WWNT1</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of hydraulic theories and principles used in the wastewater network b) Work with others to identify the root cause of problems and resolve issues c) Application of knowledge to assess network performance and capacity issues d) Identifying trends and potential faults and network issues based on monitoring Other)	
	<b>Dist.</b>	e) Independently solving problems via root cause analysis and resolving issues f) Identifying and communicating additional and relevant information pertaining to faults identified e.g. site specific information, accessibility issues, traffic sensitivity, out of hours issues g) Independent optimisation of processes showing opex savings or process efficiencies	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
8. Operate electronic location equipment to locate drains and sewers <b>WWNT2</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 2 ‘Pass’ examples, such as</p> <ul style="list-style-type: none"> <li>a) Training / certificates / attendance at courses relating to electronic location equipment</li> <li>b) Checking, maintaining and storing the locating equipment in line with company and manufacturer’s instructions</li> <li>c) Understanding the abilities and limitations of available equipment</li> <li>d) Using locating equipment in the different modes available</li> <li>e) Identifying mains and services correctly</li> <li>f) Recording mains and services in line with company procedures</li> <li>g) Communicating the types and positions of mains and services to other personnel as required</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<p>9. Work safely in a variety of locations that may include urban and rural areas, on and off the public highway and may include remote locations and where required act as supervisor of Street Works ensuring the safety of pedestrians, vehicles and site staff</p> <p><b>WWNT3, WWNT6</b></p>	<b>Pass</b>	<p>Minimum requirement to evidence at least 2 ‘Pass’ examples, such as</p> <ul style="list-style-type: none"> <li>a) Training / certificates / attendance and successful completion of training courses relating to Street Works or Street works supervision where required</li> <li>b) Arranging permits as required</li> <li>c) Planning, setting out and removing signing lighting and guarding correctly in various situations and scenarios</li> <li>d) Use of lone worker systems &amp; compliance with out of hours procedures</li> <li>e) Company recording and reporting procedures being followed</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
10. Carry out sewer network inspections, including new sewer connections <b>WWNT4</b>	<b>Pass</b>	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Communicating actions to colleagues as required b) Knowledge of company procedures and standards relating to sewer connections c) Knowledge of regulatory and company wastewater network targets and KPIs / ODIs d) Knowledge of hydraulic theories and principles used in the wastewater network e) Application of knowledge to assess wastewater network performance and capacity issues f) Understanding of the responsibilities of each party involved with the sewer connection process g) Identifying trends and potential faults and network issues based on monitoring Other)	
	<b>Dist</b>	h) Independently solving problems via root cause analysis and resolving issues i) Identifying and communicating additional and relevant information pertaining to site details and method of connection	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
11. Respond to customer reported incidents, clear blockages <b>WWNT5</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at courses relating to customer services b) Knowledge of company operations and maintenance policies and procedures relating to the wastewater network c) Knowledge of where to access company policies and procedures d) Identifying the root cause of problems and resolving issues Other)	
	<b>Dist.</b>	e) Positive customer feedback and exceeding customer expectations f) Identifying trends and potential faults and network problems based on monitoring and investigations g) Suggesting improvements to reduce the risk of customer reported incidents	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
12. Conduct confined spaces operations and ensure equipment is maintained to the required standard <b>WWNT7</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at courses relating to confined spaces operations b) Considering alternative methods of job completion to avoid confined space entry c) Planning and completion of investigations and operations in confined spaces on the wastewater network d) Testing, calibrating, maintaining and storing instruments and equipment according to company and manufacturer's instructions e) Company recording and reporting procedures being followed Other)	
	<b>Dist.</b>	f) Showing willingness to upskill and take additional responsibility for the safety of others g) Suggestion of long term solutions to prevent the need for confined space entry	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
13. Where required, supervise and inspect excavations and backfilling including trench support systems <b>WWNT8</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at courses relating to excavations and support systems b) Knowledge of company operations policies, standards and procedures relating to excavations and materials used c) Inspecting excavations, backfilling and support systems d) Company recording and reporting procedures being followed e) Liaison with all involved parties regarding inspection findings Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
14. Plan, organise and carry out work and maintenance operations to take account of risks to the environment including high pressure water jetting, flushing and de-silting. <b>WWNT9, WWNT11</b>	Pass	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Training / certificates / attendance at courses relating to high pressure water jetting b) Communicates actions to colleagues as required c) Knowledge of environmental regulations associated with wastewater networks d) Raising and prioritising work requests correctly based on known information e) Application of knowledge of company operations policies and procedures relating to high pressure water jetting f) Planning, organising and carrying out work and maintenance on the wastewater network including i. High pressure water jetting ii. Flushing iii. De-silting g) Identifying maintenance tasks h) Consideration of isolation and preparation of assets for maintenance activities Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	<ul style="list-style-type: none"> <li>i) Showing willingness to upskill and take additional responsibility for managing jobs</li> <li>j) Identifying and communicating additional and relevant information pertaining to faults identified e.g. site specific information, accessibility issues, traffic sensitivity, out of hours issues</li> <li>k) Identifying trends and suggesting proactive ways of working i.e. proactive cleansing visits</li> </ul>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
15. Organise and carry out investigations utilising CCTV equipment and report using industry standard coding system <b>WWNT10</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 2 ‘Pass’ examples, such as</p> <ul style="list-style-type: none"> <li>a) Training / certificates / attendance at courses relating to CCTV investigations</li> <li>b) Application of knowledge of company operations policies and procedures relating to CCTV investigations</li> <li>c) Planning, organising and carrying out investigations on the wastewater network using CCTV equipment</li> <li>d) Selection, inspection and use of the correct tools and ancillary equipment for the task</li> <li>e) Recognising root causes of problems on the network and implementing solutions</li> <li>f) Raising and prioritising work requests correctly based on known information</li> <li>g) Records, stores and communicates results of CCTV in accordance with company procedures</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Dist.</b>	h) Showing willingness to upskill and take additional responsibility for managing jobs i) Identifying and communicating additional and relevant information pertaining to faults identified e.g. site specific information, accessibility issues, traffic sensitivity, out of hours issues j) Identifying trends and suggesting proactive ways of working	
<b>16.</b> Ownership, responsibility and customer focus. Accepts ownership and responsibility for own work to accomplish, an	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Accomplishes an activity safely, correctly and on time b) Interacts well with customers, colleagues and members of the public c) Maintains self-discipline, motivation and always works in a professional manner Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
activity safely and on time, whilst <ul style="list-style-type: none"> <li>• maintaining self-discipline</li> <li>• working well with others</li> <li>• delivering a polite, courteous, professional service</li> </ul> <b>B1, B2, B3</b>	<b>Dist.</b>	d) Consistently takes responsibility for own performance and strives to go beyond expectations	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>17.</b> Health and safety/risk awareness. Takes responsibility for own and others health and safety, following procedures and policy to think things through whilst being aware of potential consequences, hazards, distractions and changing circumstances for an activity.  <b>B4</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 ‘Pass’ example, such as a) Demonstrates strict compliance with operational procedures and processes b) Shows an awareness of the impact of changing circumstances on an activity c) Able to identify and deal appropriately with distractions to enable tasks to be achieved Other)	
	<b>Dist.</b>	d) Consistently monitors and checks information to see if changes to plans are required for an activity	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>18.</b> Task management. Possesses and enhances appropriate knowledge, skills and experience to perform the duties of the job. Accomplishes goals by <ul style="list-style-type: none"> <li>• accepting and following instructions given by supervisor</li> <li>• responding to training</li> <li>• allocating and supervising technical and other required tasks</li> </ul> <b>B5, B8</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 ‘Pass’ example, such as a) Enhances competency through seeking guidance to help accomplish a task. e.g. Guidance may be provided via operational handbook, digital resources or asking someone. b) Allocates and supervises technical and other required tasks to efficiently accomplish goals Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>19. Results driven.</b> Identifies, organises and effectively uses resources to complete tasks in a timely fashion, considering cost, quality, safety, security and environmental impact. <b>B7</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Identifies, organises and uses resources effectively to complete tasks, b) Considers cost, quality, safety, security c) Considers environmental impact Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>20.</b> Sustainability and ethical behaviour. Thinks and behaves ethically and undertakes work in a way that contributes to a positive corporate social responsibility. <b>B9, B10, B11</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Attitude is respectful and positive, concerning the needs or concerns of others. b) Awareness of the needs and concerns of others especially where related to diversity and equality c) Maintains a positive approach to ethical requirements and undertakes work in a way that contributes to sustainable development. Other)	

## Water Network Technician: Work Log Mapping

<b>Apprentice Name/Employer:</b>	
<b>Coverage checked by (provider)</b>	
Please ensure this mapping document signposts valid evidence in the Work Log that has been correctly cross-referenced and submit to Energy & Environment Awards along with the Work Log.	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
1. Knowledge and application of relevant health and safety, environmental and industry standards and regulations, policies and procedures <b>K1, K3, S7, S8, S9</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at training courses relating to H&S, environmental, regulatory and HR requirements (e.g. Toolbox talks, induction) b) Knowledge of where to access H&S, environmental and industry information c) Reporting any faults, loss or issues with equipment d) Suggesting and implementing appropriate control measures e) Identifying changing situations in the workplace and taking the appropriate action Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	f) Voluntarily engaging with employer to make contributions to health and safety improvements and initiatives g) Understanding of the wider ranging consequences of not following standards, regulations, policies and procedures h) Continuously updating knowledge regarding health, safety, environmental and industry standards and procedures i) Understanding of wider ranging consequences of not working safely and carrying out risk assessments j) Explaining the need to maintain and store PPE and other safety equipment k) Explaining the wider ranging consequences of not working appropriately with (including storage and disposal of) chemicals l) Monitoring safety equipment use and compliance in others m) Voluntarily taking an active role in completing safety compliance checks for others	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
2. Knowledge and application of water industry operations and maintenance practices, processes and procedures in water network operations <b>K2, K4, S10</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of company operations and maintenance policies and procedures and where to find them e.g. sampling procedures, flow monitoring b) Training / certificates / attendance at training courses relating to operations and maintenance practices, processes and procedures Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
3. Use theory and principles to undertake fault finding, testing and analysis on specific equipment, instruments and IT systems and interpret the results to implement effective solutions <b>K5, K6, S7, S12, S13</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 2 'Pass' examples, such as</p> <ul style="list-style-type: none"> <li>a) Training / certificates / attendance at courses relating to specific equipment, instruments and IT systems</li> <li>b) Testing and maintaining H&amp;S equipment</li> <li>c) Knowledge and use of the operation of flow monitoring equipment</li> <li>d) Identifying faults and alarms</li> <li>e) Understanding alarms, priorities, consequences and responses</li> <li>f) Consulting and working with others to investigate, identify and resolve the root cause of problems</li> <li>g) Verifying IT systems are working correctly</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	<ul style="list-style-type: none"> <li>h) Independently conducting fault or route cause analysis to successful conclusion without guidance</li> <li>i) Presenting and sharing findings in a logical and consistent manner</li> <li>j) Technical understanding of process equipment options and practical assessment and application of their suitability for use</li> <li>k) Suggesting improvements in alarm management</li> </ul>	
4. Drive vehicles equipped with tools and materials to other sites as required <b>S15</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 example, such as <ul style="list-style-type: none"> <li>a) Full driving licence</li> <li>b) Additional driving category training as required</li> <li>c) Complying with company driving policies and procedures on a regular basis e.g. vehicle checks completed</li> <li>d) Safe loading of vehicles</li> <li>e) Keeping company vehicles maintained and cleaned to a high standard</li> <li>Other)</li> </ul>	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
5. Complete reports and ensure records are maintained for audit and reporting purposes <b>S17</b>	Pass	Completion of 4 different types of company records, specific to pathway, as required	
6. Work with focus and clear purpose in all weather conditions, covering 24/7 operations, sometimes working alone and safely adapt working methods to reflect changes in working environments <b>S14, S18, SB6</b>	Pass	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Completing planned work activities accurately and on time in all weather conditions b) Completion of tasks when on their own c) Completion of tasks out of hours d) Compliance with company working time directives Other)	
	Dist.	e) Consistent dynamic risk assessments on a variety of jobs f) Willingly assisting in emergency situations outside of normal working hours	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
7. Analyse and assess network performance measures e.g. water pressure, flows and leakage <b>WNT1</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge and application of target operating regimes for different networks b) Identifying trends and faults and solving potential network problems based on monitoring c) Implementing process changes and monitoring these for effectiveness d) Work with others to identify the root cause of problems and resolve issues Other)	
	<b>Dist.</b>	e) Independent optimisation of processes showing opex savings or process efficiencies f) Independently solving problems via root cause analysis and resolving issues g) Use of innovative solutions to solve problems	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
8. Use hydraulic theories and principles to investigate, carry out fault diagnosis and identify resolutions to network performance issues <b>WNT2, WNT7</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of hydraulic theories and principles used in the water distribution network b) Identifying trends and potential faults and network issues based on monitoring c) Completion of risk assessments and method statements relating to networks tasks d) Work with others to identify the root cause of problems and resolve issues Other)	
	<b>Distinction</b>	e) Independently solving problems via root cause analysis and resolving issues f) Identifying and communicating additional and relevant information pertaining to faults identified e.g. part numbers, accessibility issues g) Independent optimisation of processes showing opex savings or process efficiencies	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
9. Apply procedures and their control measures to the network to minimise the risk of supply interruptions to customers  <b>WNT3</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 ‘Pass’ examples, such as a) Knowledge of company operations and maintenance policies and procedures relating to the water distribution network b) Knowledge of where to access company policies and procedures c) Applying company policies and procedures in the water distribution network to minimise the risk of interruption of supplies d) Completion of risk assessments and method statements relating to networks tasks Other)	
	<b>Distinction</b>	e) Sharing techniques and imparting knowledge to others outside of direct team e.g. presentations f) Developing techniques further to provide useful solutions to supply problems g) Positive customer feedback and exceeding customer expectations h) The use of innovative techniques to manage and mitigate interruption to supply	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
10. Maintain network, equipment and systems including pumps and control valves <b>WNT4</b>	<b>Pass</b>	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Understanding of network schematics and the interdependencies of the system b) Identifying, raising and prioritising work requests correctly based on known information c) Monitoring, maintaining and controlling systems to maintain optimum performance distribution networks including analysing data to identify trends d) Taking appropriate action to maintain network equipment, pumps and control valves e) Isolation and preparation of equipment for maintenance activities Other)	
	<b>Dist</b>	f) Identifying and communicating additional and relevant information pertaining to work priorities and faults identified e.g. GIS, part numbers, accessibility issues g) Independent optimisation of processes showing opex savings or process efficiencies	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
11. Ensure the safety of pedestrians, vehicles and site staff and where required act as supervisor of Street Works <b>WNT5</b>	Pass	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance and successful completion of training courses relating to Street Works or Street Works Supervision where required b) Arranging permits as required c) Planning, setting out and removing signing lighting and guarding correctly in various situations and scenarios Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
12. Use technical knowledge to operate electronic location equipment to identify and locate underground cables and services  <b>WNT6</b>	Pass	Minimum requirement to evidence at least 3 ‘Pass’ examples, such as a) Training / certificates / attendance at courses relating to electronic location equipment b) Checking, maintaining and storing the locating equipment in line with company and manufacturer’s instructions c) Demonstrating the understanding of the abilities and limitations of available equipment d) Using locating equipment in the different modes available e) Identifying mains and services correctly f) Recording mains and services in line with company procedures g) Communicating the types and positions of mains and services to other personnel as required Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
13. Plan network operations ensuring water mains and water service pipe couplings and methods are suitable for use <b>WNT8</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Demonstration of knowledge of how to find out if fittings are approved for use under Regulation 31 b) Demonstration of knowledge of high pressure and low-pressure fittings c) Trench inspections d) Company recording and reporting procedures being followed (Other)	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
14. Authorise and carry out valve operations on water networks in accordance with operations and maintenance strategies and procedures and giving due consideration to the impact on customers, ensuring continuity of supply and minimising water quality problems <b>WNT9, WNT10</b>	Pass	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Knowledge of where to access company policies and procedures b) Knowledge and application of company operations and maintenance policies and procedures relating to valving operations in the water distribution network c) Knowledge and application of DG3 reporting d) Applying company policies and procedures in the water distribution network to minimise the risks to water supply e) Completion of risk assessments and method statements relating to networks tasks f) Authorisation of valving operations g) Following mains recharging processes and procedures h) Use of innovative techniques to manage and mitigate interruption to supply	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Dist.</b>	i) Use of innovative techniques to manage and/or mitigate interruption to supply Sharing techniques and imparting knowledge to others outside of direct team e.g. presentations j) Developing techniques further to provide useful solutions to supply problems k) Positive customer feedback and exceeding customer expectations l) The identification of network improvements to reduce the risk of future interruptions to supplies	
<b>15.</b> Ownership, responsibility and customer focus. Accepts ownership and responsibility for own work to accomplish, an	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Accomplishes an activity safely, correctly and on time b) Interacts well with customers, colleagues and members of the public c) Maintains self-discipline, motivation and always works in a professional manner Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
activity safely and on time, whilst <ul style="list-style-type: none"> <li>maintaining self-discipline</li> <li>working well with others</li> <li>delivering a polite, courteous, professional service</li> </ul> <b>B1, B2, B3</b>	<b>Dist.</b>	d) Consistently takes responsibility for own performance and strives to go beyond expectations	
<b>16.</b> Health and safety/risk awareness. Takes responsibility for own and others health and safety, following procedures and policy to think	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Demonstrates strict compliance with operational procedures and processes b) Shows an awareness of the impact of changing circumstances on an activity c) Able to identify and deal appropriately with distractions to enable tasks to be achieved Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
things through whilst being aware of potential consequences, hazards, distractions and changing circumstances for an activity. <b>B4</b>	<b>Dist.</b>	d) Consistently monitors and checks information to see if changes to plans are required for an activity	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>17. Task management.</b> Possesses and enhances appropriate knowledge, skills and experience to perform the duties of the job. Accomplishes goals by <ul style="list-style-type: none"> <li>• accepting and following instructions given by supervisor</li> <li>• responding to training</li> <li>• allocating and supervising technical and other required tasks</li> </ul> <b>B5, B8</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Enhances competency through seeking guidance to help accomplish a task. e.g. Guidance may be provided via operational handbook, digital resources or asking someone. b) Allocates and supervises technical and other required tasks to efficiently accomplish goals Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>18. Results driven.</b> Identifies, organises and effectively uses resources to complete tasks in a timely fashion, considering cost, quality, safety, security and environmental impact. <b>B7</b>	Pass	Minimum requirement to evidence at least 1 'Pass' example, such as a) Identifies, organises and uses resources effectively to complete tasks, b) Considers cost, quality, safety, security c) Considers environmental impact Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>19.</b> Sustainability and ethical behaviour. Thinks and behaves ethically and undertakes work in a way that contributes to a positive corporate social responsibility. <b>B9, B10, B11</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Attitude is respectful and positive, concerning the needs or concerns of others. b) Awareness of the needs and concerns of others especially where related to diversity and equality c) Maintains a positive approach to ethical requirements and undertakes work in a way that contributes to sustainable development.	

## Water Leakage Technician: Work Log Mapping

<b>Apprentice Name/Employer:</b>	
<b>Coverage checked by (provider)</b>	
Please ensure this mapping document signposts valid evidence in the Work Log that has been correctly cross-referenced and submit to Energy & Environment Awards along with the Work Log.	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
1. Knowledge and application of relevant health and safety, environmental and industry standards and regulations, policies and procedures <b>K1, K3, S7, S8, S9</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at training courses relating to H&S, environmental, regulatory and HR requirements (e.g. Toolbox talks, induction) b) Knowledge of where to access H&S, environmental and industry information c) Reporting any faults, loss or issues with equipment d) Suggesting and implementing appropriate control measures e) Identifying changing situations in the workplace and taking the appropriate action Other)	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	f) Voluntarily engaging with employer to make contributions to health and safety improvements and initiatives g) Understanding of the wider ranging consequences of not following standards, regulations, policies and procedures h) Continuously updating knowledge regarding health, safety, environmental and industry standards and procedures i) Understanding of wider ranging consequences of not working safely and carrying out risk assessments j) Explaining the need to maintain and store PPE and other safety equipment k) Explaining the wider ranging consequences of not working appropriately with (including storage and disposal of) chemicals l) Monitoring safety equipment use and compliance in others m) Voluntarily taking an active role in completing safety compliance checks for others	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
2. Knowledge and application of water industry operations and maintenance practices, processes and procedures in water network operations <b>K2, K4, S10</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of company operations and maintenance policies and procedures and where to find them e.g. sampling procedures, flow monitoring b) Training / certificates / attendance at training courses relating to operations and maintenance practices, processes and procedures Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
3. Use theory and principles to undertake fault finding, testing and analysis on specific equipment, instruments and IT systems and interpret the results to implement effective solutions <b>K5, K6, S7, S12, S13</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at courses relating to specific equipment, instruments and IT systems b) Testing and maintaining H&S equipment c) Knowledge and use of the operation of flow monitoring equipment d) Identifying faults and alarms e) Understanding alarms, priorities, consequences and responses f) Consulting and working with others to investigate, identify and resolve the root cause of problems g) Verifying IT systems are working correctly	
	<b>Distinction</b>	h) Independently conducting fault or root cause analysis to successful conclusion without guidance i) Presenting and sharing findings in a logical and consistent manner j) Technical understanding of process equipment options and practical assessment and application of their suitability for use k) Suggesting improvements in alarm management	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
4. Drive vehicles equipped with tools and materials to other sites as required <b>S15</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 example, such as a) Full driving licence b) Additional driving category training as required c) Complying with company driving policies and procedures on a regular basis e.g. vehicle checks completed d) Safe loading of vehicles e) Keeping company vehicles maintained and cleaned to a high standard Other)	
5. Complete reports and ensure records are maintained for audit and reporting purposes <b>S17</b>	<b>Pass</b>	Completion of 4 different types of company records, specific to pathway, as required	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
6. Work with focus and clear purpose in all weather conditions, covering 24/7 operations, sometimes working alone and safely adapt working methods to reflect changes in working environments <b>S14, S18, SB6</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Completing planned work activities accurately and on time in all weather conditions b) Completion of tasks when on their own c) Completion of tasks out of hours d) Compliance with company working time directives Other)	
	<b>Dist.</b>	e) Consistent dynamic risk assessments on a variety of jobs f) Willingly assisting in emergency situations outside of normal working hours	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
7. Work safely in a variety of locations that may include urban and rural areas, on and off the public highway and may include remote locations <b>WLT1</b>	Pass	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance and successful completion of training courses relating to Street Works or Street Works Supervision where required b) Arranging permits as per company requirements Other)	
8. Using technical knowledge identify areas that require further investigation due to leakage deciding on the most appropriate methods to identify	Pass	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of regulatory and company leakage targets and KPIs / ODIs b) Identifying trends and potential faults and network leakage issues based on monitoring c) Work with others to identify the root cause of problems and resolve issues Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
and locate sources of leakage <b>WLT2</b>	<b>Distinction</b>	d) Independently solving problems via root cause analysis and resolving issues e) Independent optimisation of processes showing opex savings or process efficiencies f) Identifying and communicating additional and relevant information pertaining to faults identified e.g. GIS, part numbers, accessibility issues g) Identifying network improvements to reduce the risk of future leakage issues h) Developing techniques further to provide useful solutions to supply problems	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
9. Use technical knowledge to operate electronic location equipment to identify and locate underground cables and services <b>WLT3</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Training / certificates / attendance at courses relating to electronic location equipment b) Understanding the abilities and limitations of available equipment c) Checking, maintaining and storing the locating equipment in line with company and manufacturer's instructions d) Using locating equipment in the different modes available e) Identifying mains and services correctly f) Recording mains and services in line with company procedures g) Communicating the types and positions of mains and services to other personnel as required Other)	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
	<b>Distinction</b>	h) Sharing techniques and imparting knowledge to others outside of direct team e.g. presentations i) Developing techniques further to provide useful solutions to supply problems j) Positive customer feedback and exceeding customer expectations k) The use of innovative techniques to manage and mitigate interruption to supply	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
10. Using hydraulic theories and principles carry out valve operations to set up, test, maintain or alter district meter areas <b>WLT4</b>	<b>Pass</b>	Minimum requirement to evidence at least 3 'Pass' examples, such as a) Understanding of network schematics and the interdependencies of the system b) Knowledge and application of hydraulic theories and principles in the water distribution network c) Monitoring, testing, maintaining and altering systems to maintain optimum performance of distribution networks including analysing data to identify trends d) Completion of risk assessments and method statements relating to networks tasks e) Communicates actions to colleagues as required Other)	
	<b>Dist.</b>	f) Submitting proposals to improve the structure and / or operation of a DMA	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
11. Use industry principles and measurement to estimate volumes of water lost through leakage <b>WLT5</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of regulatory and company leakage targets and KPIs / ODIs b) Leakage campaigns completed and the results obtained c) Calculations of flow and estimated volumes of water lost through leakage Other)	
	<b>Dist.</b>	d) Over exceeding company targets relating to leakage on a regular and consistent basis	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
12. Programme, deploy, retrieve and interpret data from data logging equipment <b>WLT6</b>	<b>Pass</b>	<p>Minimum requirement to evidence at least 3 'Pass' examples, such as</p> <ul style="list-style-type: none"> <li>a) Producing data trends from information gathered</li> <li>b) Training / certificates / attendance at courses relating to data logging equipment</li> <li>c) Using company data to detect different logging points including permanent and temporary points</li> <li>d) Logging data relating to: <ul style="list-style-type: none"> <li>o Flow</li> <li>o Pressure</li> </ul> </li> <li>e) Using different types of logging devices</li> <li>f) Programming the devices to record all required data</li> <li>g) Installing and deploying logging devices in the network without causing impact to customers</li> <li>h) Retrieving logging devices from the network</li> <li>i) Retrieving and correctly interpreting data from loggers</li> <li>j) Maintaining and storing logging equipment correctly</li> </ul> <p>Other)</p>	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
13. Apply procedures and their control measures to the network to minimise the risk of interruption of supplies to customers <b>WLT7</b>	<b>Pass</b>	Minimum requirement to evidence at least 2 'Pass' examples, such as a) Knowledge of company operations and maintenance policies and procedures relating to the water distribution network b) Knowledge of where to access company policies and procedures c) Use of all available techniques to manage and mitigate interruption to supply d) Applying company policies and procedures in the water distribution network to minimise the risk of interruption of supplies e) Identification of different types of valves and equipment in the network f) Completion of risk assessments and method statements relating to networks tasks Other)	
	<b>Dist.</b>	g) Sharing techniques and imparting knowledge to others outside of direct team e.g. presentations h) The use of innovative techniques to provide useful solutions to supply problems	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>14. Ownership, responsibility and customer focus.</b> Accepts ownership and responsibility for own work to accomplish, an activity safely and on time, whilst <ul style="list-style-type: none"> <li>maintaining self-discipline</li> <li>working well with others</li> <li>delivering a polite, courteous, professional service</li> </ul> <b>B1, B2, B3</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Accomplishes an activity safely, correctly and on time b) Interacts well with customers, colleagues and members of the public c) Maintains self-discipline, motivation and always works in a professional manner Other)	
	<b>Dist.</b>	d) Consistently takes responsibility for own performance and strives to go beyond expectations	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>15.</b> Health and safety/risk awareness. Takes responsibility for own and others health and safety, following procedures and policy to think things through whilst being aware of potential consequences, hazards, distractions and changing circumstances for an activity. <b>B4</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Demonstrates strict compliance with operational procedures and processes b) Shows an awareness of the impact of changing circumstances on an activity c) Able to identify and deal appropriately with distractions to enable tasks to be achieved Other)	
	<b>Dist.</b>	d) Consistently monitors and checks information to see if changes to plans are required for an activity	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>16.</b> Task management. Possesses and enhances appropriate knowledge, skills and experience to perform the duties of the job. Accomplishes goals by <ul style="list-style-type: none"> <li>• accepting and following instructions given by supervisor</li> <li>• responding to training</li> <li>• allocating and supervising technical and other required tasks</li> </ul> <b>B5, B8</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Enhances competency through seeking guidance to help accomplish a task. e.g. Guidance may be provided via operational handbook, digital resources or asking someone. b) Allocates and supervises technical and other required tasks to efficiently accomplish goals Other)	



Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>17. Results driven.</b> Identifies, organises and effectively uses resources to complete tasks in a timely fashion, considering cost, quality, safety, security and environmental impact. <b>B7</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Identifies, organises and uses resources effectively to complete tasks, b) Considers cost, quality, safety, security c) Considers environmental impact Other)	

Section	Grade	Portfolio Evidence Requirement from <u>Work Log</u> <u>Circle evidence type(s) and enter location in next column</u>	Evidence Location (e.g. job number/page number)
<b>18.</b> Sustainability and ethical behaviour. Thinks and behaves ethically and undertakes work in a way that contributes to a positive corporate social responsibility. <b>B9, B10, B11</b>	<b>Pass</b>	Minimum requirement to evidence at least 1 'Pass' example, such as a) Attitude is respectful and positive, concerning the needs or concerns of others. b) Awareness of the needs and concerns of others especially where related to diversity and equality c) Maintains a positive approach to ethical requirements and undertakes work in a way that contributes to sustainable development. Other)	

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